

**A BIOLOGICAL RESOURCES SURVEY REPORT
FOR THE
CLUB ESTATES PROJECT**

TM 5499, ER 06-03-003, KIVA 06-0062064

**APN 130-100-17 & -26
COUNTY OF SAN DIEGO**

Prepared for

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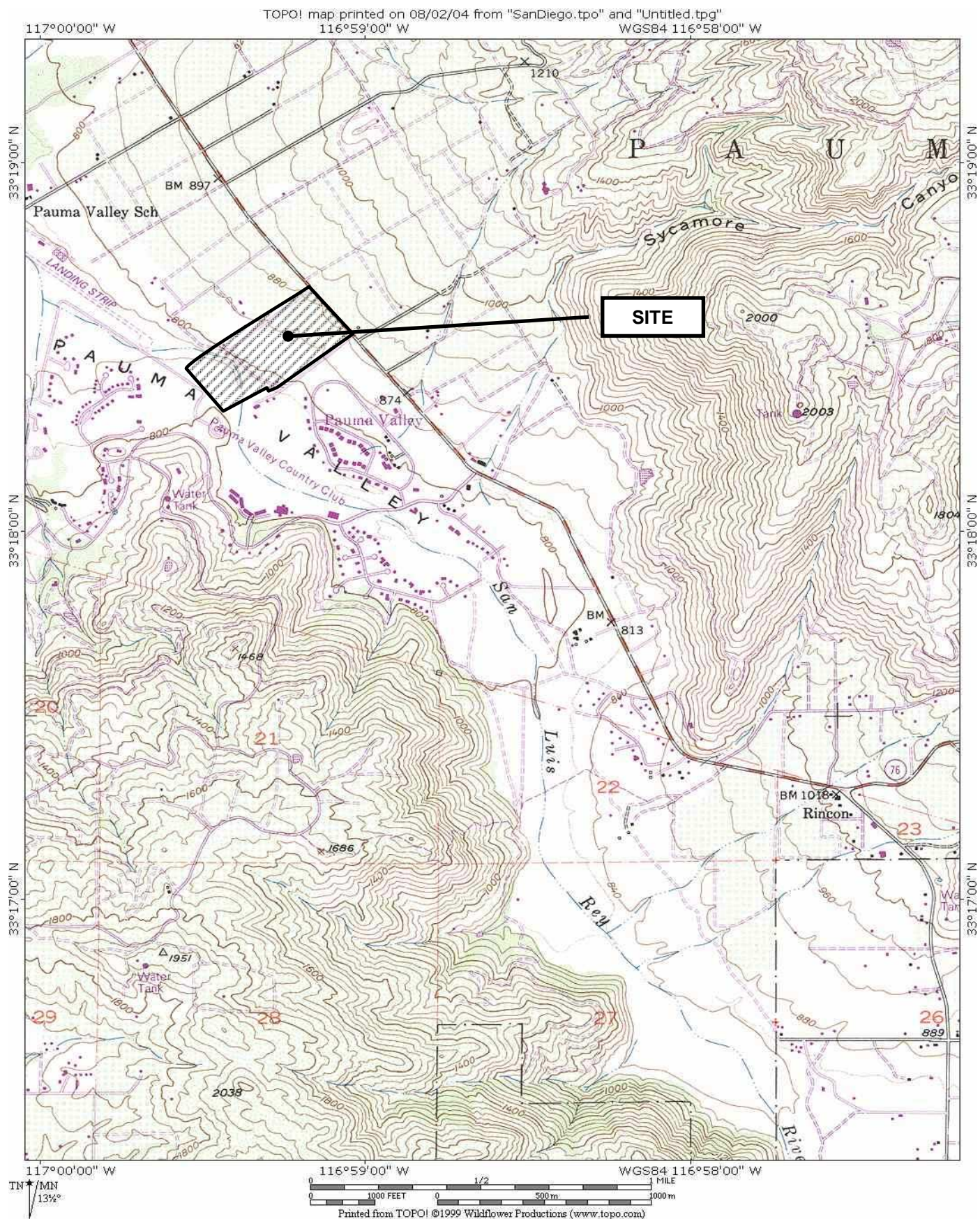
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Final Revision May 2008
~~Updated June 2007~~
~~August 2006~~



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**FIGURE 1. REGIONAL LOCATION - THE CLUB ESTATES PROJECT
PORTION OF THE U.S.G.S. "BOUCHER HILL" 7.5' QUADRANGLE**



INTRODUCTION

This report addresses biological resources, project impacts, and RPO/CEQA (Resource Protection Ordinance/California Environmental Quality Act) compatibility for the Club Estates Project, TM 5499, ER 06-03-003, KIVA 06-0062064. The project involves an approximately 48.31-acre property (APN 130-100-17 & -26) located southwest of State Route 76 (SR 76) in the Pauma Valley area of unincorporated San Diego County, California (Figure 1).

PROJECT AND SITE DESCRIPTION

The Club Estates project proposes a Tentative Map (TM 5499) subdivision of 48.31 acres of vacant and active agricultural land. The site currently supports a single home, citrus grove, open lands, and two wells. Approval of the proposed project would result in the creation of 31 new legal residential lots, plus one non-buildable lot, with associated road improvements, etc. Access to the Club Estates project's proposed development area would be from the northwest, off SR 76 (an encroachment permit from Caltrans will be required) with a second improved access provided to the southeast through the adjoining Pauma Valley Country Club via Luiseño Circle Drive. No improvements to Luiseño Circle Drive or Pauma Valley Drive are anticipated at this time. If future improvements are required by the Department of Public Works, they would occur only in disturbed or developed areas within the adjoining Pauma Valley Country Club.

The Club Estates property is located in a rural part of San Diego County, although the Pauma Valley Country Club is located immediately southeast of the site, and various homes are located in the vicinity, including homes on other adjoining parcels.

Portions of the property support an active citrus grove, although the southwestern edge of the site supports native riparian vegetation. The San Luis Rey River (SLRR) clips the southwestern edge of the site as it flows in a southeast to northwest direction. Two unnamed agricultural ditches carry water onto the site from basins on the northeast side of SR 76 through the citrus grove. These eventually drain into the SLRR. Elevations onsite range between approximately 753 feet MSL in the bottom of the river and 890 feet MSL near SR 76. Soil types found onsite include Visalia sandy loam soils (VaB) on slopes between 2 and 5 percent, Vista coarse sandy loams (VsG) on slopes between 30 and 65 percent, Soboba stony loamy sand (SsE) on slopes between 9 to 30 percent, Ramona sandy loam (RaC), on slopes between 2 and 5 percent, and Tujunga sand (TuB) on slopes between 0 and 2 percent. These soil-types are not known to support significant populations of narrow endemics or other very rare plants or animals.

Physiographically, the Club Estates site can be described as gently sloping from SR 76 to the southwest before dropping steeply to a lower terrace, then dropping again to the SLRR. Three physiographic areas are discussed in this report. These are (1) the upper terrace (where development is proposed); (2) the lower terrace (which will not be developed, but will be restored with floodplain fringe habitat); and (3) the SLRR, which will not be disturbed.

The lower terrace and SLRR itself will be conserved in biological open space to offset impacts associated with the development of the upper terrace, to protect riparian resources, and preclude impacts to endangered species.

PURPOSE OF STUDY

The purpose of this study was to inventory the property for biological resources, identify and map all onsite habitats, and search for signs of rare, endangered, threatened, or otherwise sensitive plants or animals which are known from the area and which could occur here. These data were used in an assessment of biological resource values. This analysis allows a determination of project-related direct and indirect impacts, as required by the CEQA and the RPO, and mitigation, if appropriate and necessary. It is expected that the development of the property and associated improvements will result in measurable losses of biological resource values, necessitating mitigation.

METHODS

Field surveys of the Club Estates property were completed on various dates between March of 2004 and May of 2005. The specific dates, personnel, and weather conditions are presented in Table 1.

Table 1. Field Surveys – The Club Estates Project Site

<u>Date</u>	<u>Hours</u>	<u>Personnel</u>	<u>Conditions</u>
27-April-05	09:00-12:00	VS, SA	Clear skies; no wind; temperatures low 70°s
28-April-05	20:40-23:30	VS, SA, RS, DA, KB	Overcast, no wind, temperature 62°
16-May-05	21:00-23:40	VS, AS	Overcast to clear, no wind, temperature 64°
17-May-05	10:00-11:45	SA	Overcast to sunny; no wind; temps 65° to 70°
23-May-05	21:00-23:30	VS, SA	Clear skies; no wind; temps 60° to 65°
25-May-05	11:00-13:30	VS, SA	Clear skies; no wind; temps 80° to 85°
30-May-05	20:40-22:30	VS, SA	Clear skies; no wind; temps 55° to 60°
6-Jun-05	20:40-22:30	VS, SA	Clear skies; no wind; temps 55° to 62°
13-Jun-05	21:00-23:45	VS, RS, AS	Clear skies; no wind; temps 60° to 65°

Investigators included the author (VS) and Shannon Allen (SA), Biological Consultants, and Ryan Scheidt (RS), Allison Scheidt (AS), Di Anna Abdo (DA), and Katie Boehm (KB), Field Assistants.

All plants, animals and habitats encountered during the survey periods were noted in the field. The limits of each habitat-type were mapped in the field utilizing an aerial photograph of the property. All plants and animals

identified in association with the property are listed in Table 2 at the end of this report. Plants were identified *in situ*, or based on characteristic floral parts collected and later examined in detail. Floral nomenclature used in this letter follows Hickman (1993) and others. Plant communities, as designated by numerical code, follow Holland (1996, as amended).

Wildlife observations were made opportunistically. Binoculars were used to aid in observations and all wildlife species detected were noted. Animal nomenclature used in this report is taken from Stebbins (1985) for reptiles and amphibians, American Ornithologist's Union (1983, as updated) for birds, and Jones, et. al (1992) for mammals.

Several directed (protocol) field surveys and habitat evaluations were conducted in conjunction with the biological study of the site. These included a protocol Arroyo (Southwestern) Toad presence/absence survey, a wetland survey, and habitat evaluations for various other sensitive species known from the vicinity. The various directed surveys followed approved protocols to maximize detection of the respective biological resources, if present.

RESULTS

Habitats

The Club Estates property supports several native upland and wetland plant associations. Also present are developed and disturbed areas. The following six habitat-types are present onsite, as delineated for this report: (1) Southern Riparian Scrub; (2) Open Coast Live Oak Woodland; (3) Non-native Grassland; (4) Non-native Vegetation; (5) Urban/Developed; and (6) Orchards and Vineyards. The approximate configuration of each of the onsite habitats is shown in Figure 2.

Southern Riparian Scrub (Holland Code 63300) – 3.19 acres

Southern Riparian Scrub (SRS) vegetation is found in the SLRR. Indicators in this habitat include Mule Fat (*Baccharis glutinosa*), Arroyo Willow (*Salix lasiolepis*), Douglas Sagewort (*Artemisia douglasiana*), and numerous other hydrophytes. Along the fringes of the river are occasional upland species, including Flat-top Buckwheat (*Eriogonum fasciculatum*) and California Sagebrush (*Artemisia californica*), although these do not constitute a discrete habitat-type. Southern Riparian Scrub is a high-value wetland habitat-type.

Open Coast Live Oak Woodland (Holland Code 71161) – 0.55 acre

A number of generally-isolated Coast Live Oaks (*Quercus agrifolia*) are found on the subject property. These constitute an Open Coast Live Oak Woodland habitat-type. Oaks are found in two locations – near the southeastern edge of the site, where the habitat is represented by a handful of trees, and near property's the western edge, where a single large tree remains on the lower terrace. Understory elements include various native and non-native forbs and grasses as well as understory landscaping (southeastern stand). The isolation of these trees has generally diminished the habitat value they provide, although numerous native wildlife species were

observed moving between the trees and adjoining upland areas. The biological resource value of the Open Coast Live Oak Woodland on this site is considered moderate.

Non-native Grassland (Holland Code 42200) – 30.52 acres

Non-native Grassland (NNG) covers a large percentage of the site between the SLRR and the citrus grove near SR 76. This includes nearly 100 percent of the lower terrace and a significant portion of the upper terrace. Indicators in this weedy habitat include a dense thatch of Ripgut Brome (*Bromus diandrus*), with Perennial Mustard (*Brassica geniculata*), Purple False-brome (*Brachypodium distachyon*), Tumble Mustard (*Sisymbrium altissimum*), and native species such as Fiddleneck (*Amsinckia intermedia*) and Common Cryptantha (*Cryptantha intermedia*). This portion of the site was used for agriculture in the past, although it appears that the upper terrace lands (other than those supporting the citrus groves) have been fallow for several years. The lower terrace continues to be farmed seasonally, although it was covered with weedy annual growth during most of the surveys. Non-native Grassland is of moderate biological resource value, as it provides open areas for raptor foraging.

Non-Native Vegetation (Holland Code 11000) – 1.00 acres

Non-Native Vegetation (NNV) is found along the eastern edge of the site adjacent to the Pauma Valley Country Club and on the slopes of the escarpment that separates the upper and lower terraces. This area supports ornamental plants, including Eucalyptus trees (*Eucalyptus*), Silk Oak (*Grevillea robusta*), Red Apple Iceplant (*Aptenia cordifolia*) and other horticultural plants that have been planted as landscaping. The biological resource value of this habitat-type is low.

Urban/Developed (Holland Code 12000) – 1.74 acres

State Highway 76, which forms the northeastern edge of the property, qualifies as supporting Urban/Developed habitat. This feature is paved, supporting no vegetation. Other areas that qualify as Urban/Developed Habitat include the area surrounding the existing home near the site's western end and offsite residential development to the southeast in the Pauma Valley Country Club. The biological resource value of this habitat-type is low.

Orchards and Vineyards (Holland Code 18100) – 11.21 acres

Active agriculture is found on the northeastern portion of the property on the upper terrace. This consists of a grove of 80+ year-old Orange trees (*Citrus sinensis*). Beneath the trees, this habitat supports mostly occasional grove weeds, such as Spotted Spurge (*Chamaesyce maculata*), White Tumbleweed (*Amaranthus albus*), and others. The biological resource value of this habitat-type is low.

Plants

Seventy-nine species of vascular plants were detected on the Club Estates property. The plant species observed typify the diversity normally found in riparian areas, agricultural areas, and disturbed/ruderal areas in the Pauma Valley area of San Diego County. A complete list of the plants detected, listed alphabetically, can be found in

Table 2, attached. This list would be expected to represent at least 75 percent of the naturalized plants occurring on this site. The ornamental plants surrounding the existing home on proposed lot 31 were not inventoried.

Animals

Thirty-six species of animals were observed using the project site. These are generally common species, abundant in the site's general vicinity, although seven of the animals observed are considered sensitive in San Diego County. These are discussed subsequently. All animals observed onsite are listed in Table 2, attached.

SENSITIVE RESOURCES

Sensitive Vegetation Communities

Vegetation communities (habitats) are generally considered "sensitive" if (a) they are recognized by the County's RPO as being generally depleted; (b) they are considered rare within the region by local experts; (c) they are known to support sensitive animal or plant species; and/or (d) they are known to serve as important wildlife corridors. These sensitive habitats are typically depleted throughout their known ranges or are highly localized and/or fragmented.

The following two habitats found on the Club Estates site are considered sensitive:

- Southern Riparian Scrub
- Open Coast Live Oak Woodland

These habitats are of moderate to high biological resource value and both support, or partially support, sensitive species. Also considered sensitive (albeit less so) is the following plant community:

- Non-native Grassland

This open community, although not "native" or indigenous to the site, functions as a sensitive biological resource insofar as it provides measurable wildlife habitat value and contributes to the support of sensitive species.

Wetlands

The Club Estates site supports significant wetlands within the SLRR. Wetlands are also present in the two agricultural drainages that run through the citrus grove and the adjoining grassland area.

The California Department of Fish and Game-defined (CDFG), U. S. Army Corps of Engineers (ACOE), and County of San Diego (pursuant to the RPO) all define wetlands on the basis of various indicators. The current definitions utilized by these agencies with respect to wetlands regulation differ, as follows:

Federal Wetland Definitions

The federal regulations that implement Section 404 of the Clean Water Act (CWA), which was enacted in 1972, define “wetlands” as follows:

“Those areas that are inundated or saturated by surface or ground water (hydrology) at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation (hydrophytes) typically adapted for life in saturated soil conditions (hydric soils). Wetlands generally include swamps, marshes, bogs, and similar areas.” (40 CFR 232.2(r)).

Federal jurisdictional wetlands that are regulated by the ACOE under Section 404 of the CWA must exhibit all three of the above characteristics: hydrology, hydrophytes, and hydric soils (ACOE, 1987). Areas that may function as wetlands ecologically, but exhibit one or two of the three characteristics, do not currently qualify as federal jurisdictional wetlands; thus, activities in these wetlands are not regulated under Section 404.

The ACOE also regulates the discharge of dredge and/or fill material into non-wetland “waters of the United States”. The term “waters of the United States” is defined by Corps regulations at 33 CFR Part 328.3 9(a) as:

- 1) *All waters that are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
- 2) *All interstate waters including interstate wetlands;*
- 3) *All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:*
 - (i) which are or could be used by interstate or foreign travelers for recreational or other purposes; or*
 - (ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or*
 - (iii) which are used or could be used for industrial purpose by industries in interstate commerce;*
- 4) *All impoundments of waters otherwise defined as waters of the United States under the definition;*
- 5) *Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;*
- 6) *The territorial seas;*
- 7) *Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1)-(6) of this section.*

The ACOE also takes jurisdiction in non-tidal waters when wetlands are not present according to the ordinary high water mark (OHWM). This is defined as:

“...that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.”

State Wetland Definitions

According to the definition used by the CDFG, wetlands are *"lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is covered by shallow water,"* and they exist where any one of the following conditions are present:

- A) *Predominantly undrained hydric soils (soils with low concentrations of oxygen in the upper layers during the growing season);*
- B) *a predominance, at least periodically, of hydrophytic plants (plants that have adapted to the low availability of oxygen and others stresses in saturated soils);*
- C) *a nonsoil substrate (such as a rocky shore) that is saturated with water or covered by shallow water each year at some point during the growing season.*

The California version of CWA is the Porter-Cologne Act, which established the State Water Resources Control Board (SWRCB) and the California Regional Water Quality Control Boards (CRWQCB) to oversee use and protection of the “waters of the state”. In California, all surface waters and groundwater are “waters of the state”.

County Wetland Definitions

The County’s recently amended (2007) RPO defines “wetlands” as follows.

- (1) *Lands having one or more of the following attributes are “wetlands”:*
 - (aa) *At least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places);*
 - (bb) *The substratum is predominantly undrained hydric soil; or*
 - (cc) *An ephemeral or perennial stream is present, whose substratum is predominately non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.”*
- (2) *Notwithstanding paragraph (1) above, the following shall not be considered “Wetlands”:*

- (aa) *Lands which have attribute(s) specified in paragraph (1) solely due to man-made structures (e.g., culverts, ditches, road crossings, or agricultural ponds), provided that the Director of Planning and Land Use determines that they:*
- (i) Have negligible biological function or value as wetlands;*
 - (ii) Are small and geographically isolated from other wetland systems;*
 - (iii) Are not Vernal Pools; and,*
 - (iv) Do not have substantial or locally important populations of wetland dependent sensitive species.*
- (bb) *Lands that have been degraded by past legal land disturbance activities, to the point that they meet the following criteria as determined by the Director of Planning and Land Use:*
- (i) Have negligible biological function or value as wetlands even if restored to the extent feasible; and,*
 - (ii) Do not have substantial or locally important populations of wetland dependent sensitive species.*

“Waters” are not specifically discussed in the County’s amended RPO, and the County of San Diego does not apparently recognize waters as a County-regulated resource.

Wetland Survey Results

The project site supports regulated wetlands and non-wetland “waters” in several areas, as illustrated in Figure 2. All of these areas shows clear signs of “bed and bank” and OHWM. Areas that qualify as federal wetlands also show a predominance of hydrophytic (wetland) vegetation and hydric soils. These areas also qualify as “waters of the United States”, and the ACOE has indicated that it will take jurisdiction over all onsite federal “waters”. In addition, all of the federal wetlands and “waters” show clear signs of state-defined wetlands hydrology, qualifying them as CDFG-defined wetlands and “waters of the State”. As discussed previously, the criteria used to define a wetland at the state level are significantly less restrictive in terms of presence of requisite indicators.

The total onsite wetlands and waters are equivalent to the following:

Federal and County (ACOE & RPO) wetlands	Federal (ACOE) non-wetland waters	State (CDFG, CRWQCB) wetlands and waters
3.19 acres (SRS)	0.10 acres	3.29 acres

The CDFG, CRWQCB, and ACOE typically recommend that impacts to wetlands and “waters” be (1) avoided to the extent feasible; (2) minimized if complete avoidance cannot be provided; or (3) mitigated if complete avoidance or minimization cannot be achieved. Wetland impacts trigger the need for a 1600-series Streambed Alteration Agreement with CDFG, Clean Water Certification pursuant to the Section 401 of the CWA or the Porter-Cologne Act as administered by the CRWCQB, and/or a U.S. Army Permit pursuant to Section 404 of the CWA in

order to ensure adequate mitigation for project-related impacts to state wetlands. State wetlands and “waters” are also illustrated in Figure 2.

The project site contains a portion of the SLRR, which qualifies as a wetland under the RPO (as well as the ACOE, CDFG, and CRWQCB). One hundred percent of the area mapped in Figure 2 as “Southern Riparian Scrub” qualifies as an RPO wetland. In other words, the limits of the RPO wetland coincide with the limits of the SRS. The RPO restricts impacts to wetlands and wetland buffers. This natural feature is a significant constraint to land uses on the project site, although the project design entirely avoids this area. No direct impacts to the SLRR are anticipated, thus ensuring consistency with the RPO. The RPO also requires buffers of all RPO wetlands. To that end, the project has been designed to incorporate a 100-foot wide wetland buffer from the outer edge of the SRS. This area will be incorporated as part of the project’s dedicated Biological Open Space Easement, with protection from future fire clearing through the dedication of a Limited Building Zone Easement. These easements are discussed in more detail subsequently.

Sensitive Plants

No sensitive plants were observed on the Club Estates property during the field surveys. Sensitive plants are those listed as "Rare", "Endangered", "Threatened", "of Special Concern", or otherwise considered noteworthy by the MSCP, the California Department of Fish and Game, the U.S. Fish and Wildlife Service, the California Native Plant Society (CNPS), or other conservation agencies, organizations, or local botanists. A number of sensitive plant species are known to occur in the general vicinity of this property, however, and some of these could occur onsite. These are listed and discussed in Table 4.

Sensitive Animals

Seven species of sensitive animal were observed on the Club Estates project site during the field surveys. These are Arroyo Toad, Western Spadefoot, Bobcat, Great Horned Owl, Barn Owl, White-faced Ibis, and Red-shouldered Hawk. Sensitive animals are those listed as "Rare", "Endangered", "Threatened", "of Special Concern" or otherwise noteworthy by the California Department of Fish and Game, the U.S. Fish and Wildlife Service, the National Audubon Society, the County of San Diego, or other conservation agencies, organizations, or local zoologists. Other sensitive animals known from the general vicinity of the property are listed in Table 4. A few of these others probably occur onsite, at least on an occasional basis, particularly other wide-ranging foragers, such as various species of rare bats, raptors, reptiles, etc.

Arroyo Toad / *Bufo californicus*

Listing: Federal status: ENDANGERED SPECIES

"Declining" (Stebbins, 1984)

State status: California Species of Special Concern

County status: San Diego County "Sensitive Amphibian" List (DPLU, 1994)

Distribution: Coastal areas of California and adjacent Baja California, Mexico.

Habitat(s): In southern California, open vegetation, such as grasslands and areas of open sage scrub, where the soils may be clayey, sandy or gravelly. Also associated with edges of other habitats, including dense riparian areas.

Status on Site: Scores of toadlets and tadpoles detected onsite within the SLRR and moving up the lower terrace area below the steep embankment during the nocturnal Arroyo Toad survey in 2005. No mature specimens were detected, suggesting that the transitional upland area (the lower terrace) and the upland area (the upper terrace) are currently unsuitable for this species. It is likely that the neonates observed were "wash-downs" from upper areas of the river, where the breeding habitat is far superior. "Wash-down" during flood events is the principal dispersal mechanism of Arroyo Toads, allowing recruitment into new areas from breeding centers further upstream.

Comments: An expanded discussion of this species and its relationship to this site is presented below.

Western Spadefoot / *Scaphiopus hammondi*

Listing: Federal status: Species of Concern

"Declining" (Stebbins, 1984)

State status: California Species of Special Concern

County status: San Diego County "Sensitive Amphibian" List (DPLU, 1994)

Distribution: Coastal areas of California and adjacent Baja California, Mexico.

Habitat(s): In southern California, open vegetation, such as grasslands and areas of open sage scrub, where the soils may be clayey, sandy or gravelly. Also associated with edges of other habitats, including dense riparian areas. Breed in slow-moving creeks, vernal pools, and other areas of still water.

Status on Site: Several immature specimens and many dozens of toadlets and tadpoles detected onsite within the SLRR and on the lower terrace area during the nocturnal Arroyo Toad survey in 2005.

Bobcat / *Lynx rufus*

Listing: State status: Regulated Furbearer (CDFG, 1999)

Distribution: Southern Canada to central Mexico.

Habitat(s): Brushy areas, including chaparral, sage scrub, woodlands, and forests. Rarely seen during daylight hours. Often present without being detected.

Status On Site: Scats and tracks observed in areas along the lower terrace, suggesting movement along the SLRR corridor.

Barn Owl / *Tyto alba*

Listing: "Blue-list" (Tate, 1986).

Federal/State status: none.

County status: San Diego County "Sensitive Animal" List, Group 2 (DPLU, 2007)

Distribution: Nearly worldwide in tropical and temperate regions.

Habitat(s): In southern California, Barn Owls range and forage widely, nesting in many types of open cavities. Specimens roost in areas of thick vegetation or in buildings (hence the common name).

Status on Site: Several specimens observed roosting in the eucalyptus trees near the onsite residence and flying over the site during the toad surveys. Feathers characteristic of this species were also found in the central portion of the property.

Great Horned Owl / *Bubo virginianus*

Listing: "Blue-list" (Tate, 1986).

California "Fully Protected" Species (CDFG, 1994).

Federal/State status: none.

Distribution: North American species occurring over most of the western hemisphere, from Alaska to Tierra del Fuego.

Habitat(s): Ranges over large areas, nesting and roosting wherever there are dense stands of tall trees, including eucalyptus and sycamores.

Status on Site: Single specimen heard vocalizing and observed flying across the site during the nocturnal toad surveys.

White-faced Ibis / *Plegadis chihi*

Listing: "California Species of Special Concern" (CDFG, 1994).

Federal status: none.

County status; San Diego County "Sensitive Animal" List, Group 1 (DPLU, 2007)

Distribution: Occurs over much of the southwestern U.S. and Mexico. It is an uncommon summer resident in sections of Southern California, a rare visitor in the Central Valley, and widespread during migration.

Habitat(s): This species prefers fresh emergent wetlands, shallow lacustrine waters, and muddy ground of wet meadows and irrigated, or flooded, pastures and croplands. Nests in dense, fresh emergent wetland. This species no longer breeds regularly anywhere in California.

Status on Site: Single specimen observed during the survey foraging in the SLRR.

Red-shouldered Hawk / *Buteo lineatus*

Listing: California "Fully Protected" Species (CDFG, 1994)

Federal status: none

County status: San Diego County "Sensitive Animal" List, Group 1 (DPLU, 2007)

Distribution: Central and southern California west of the Sierras. Also Mexico, southeastern Canada, and the eastern United States.

Habitat(s): Mainly inhabits a variety of woodland habitats, including oak woodlands and larger eucalyptus stands.

Status on Site: Specimens seen soaring high over the site during several of the field surveys.

Arroyo Toad Discussion

Arroyo Toad (*Bufo microscaphus californicus*), is a federally listed "Endangered" amphibian. This species, also referred to as "Arroyo Southwestern Toad", "Southwestern Arroyo Toad", and "California Toad", is a small (two to three inches), variably-colored anuran light greenish-gray or tan anuran with warty skin and small dark spots. The venter is buff colored and spotless, and a faint pale stripe crosses the head and eyelids. A secondary stripe is found on each sacral hump and across the middle of back.

Adult Arroyo Toads feed on a wide variety of arthropods, while juveniles feed on small insects such as ants and small beetles. Adults are nocturnal, remaining buried or below ground in rodent burrows during the day and emerging at night to feed. Breeding occurs in small to intermediate-sized streams from late March until mid-June, depending on elevation and stream flow (USFWS, 1994). Breeding Arroyo Toads select drainages with minimal stream currents and a gently sloping shoreline. The majority of selected breeding pools are less than one foot deep with a sand and gravel substrate (Harvard GSD, 1996). The courtship vocalization of the male Arroyo Toad is a long musical trill lasting six to ten seconds. Females and juveniles do not trill.

Female Arroyo Toads release their 2,000 to 10,000 egg clutches on substrates of sand, gravel, cobble, or mud in the shallow margins of the pool away from vegetation. Females produce only one clutch per breeding season. Larvae (tadpoles) begin to develop in the egg within four to six days, and the larvae may take 8 to 14 days to metamorphose into free swimming tadpoles. Larvae are typically found near open sand or gravel bars and flats along the stream edge, using algae mats for temporary cover. The tadpoles are detritus feeders, gleaning organic

matter from the gravel and sandy substrate (Harvard GSD, 1996). After metamorphosis (usually in June or July), toadlets remain on the bordering gravel/sand bars until the pool no longer exists.

Arroyo Toads are found in the vicinity of rivers and streams that have shallow pools adjacent to sand/gravel terraces. Juveniles and adults have been observed on terraces with closures of cottonwoods, oaks, and willows, and a near total lack of herbaceous ground cover (USFWS, 1994). Toadlets and adult toads may range widely into the surrounding uplands, commonly up to 0.3 miles and often up to 1.2 miles from the watercourse (USFWS, 1999). Upland habitats frequently utilized include coastal sage scrub, chaparral, native and non-native grasslands, and oak woodlands.

A variety of soil-types are associated with Arroyo Toad aestivation sites; adults burrow into fine sands and sandy loams, but this substrate can be interspersed with cobble deposits, and the species frequently utilizes rodent burrows in areas of appropriate vegetative cover.

Little is known of the wintering habitats of the Arroyo Toad during the non-breeding season. In the central portion of the range, including San Diego County, Arroyo Toads may be active all year, although activity is limited to periods of rainfall or moist conditions and moderate air temperatures.

Arroyo Toad Distribution

Historically, Arroyo Toads were found along many of the drainages throughout Southern California, from San Luis Obispo County south into northern Baja California, at elevations between sea level and 4,600 feet MSL. Although Arroyo Toads are principally found along coastal drainages, this species has been recorded at several locations on the desert slopes of the Transverse and Peninsular ranges (USFWS, 1999). Development and agriculture has reduced this species' range by an estimated 75% (USFWS, 1994). Arroyo Toads are now found in fragmented portions of this range, typically in the headwaters of streams. In San Diego County, significant populations are found in the Cleveland National Forest and on private lands within or adjacent to the forest (USFWS, 1994). Arroyo Toads have historically been found in several drainages within the Tijuana River-Cottonwood Creek Basin including Pine Valley, Noble, Cottonwood, Kitchen, Portrero, and Moreno Creeks and Scove Canyon. According to the USFWS (1999), viable populations of Arroyo Toad are assumed to be located in the Sweetwater River and Tijuana River-Cottonwood Creek Basins. Suitable habitat and toad presence has also been established in a number of other drainages throughout the County, including the SLRR, a portion of which crosses the Club Estates project site.

Arroyo Toad Directed Field Survey

The riparian area on the subject property was searched for suitable habitat, including sandy openings and gravel banks. The onsite riparian habitat is marginal for this species, however, due to sand depletion as a result of upstream development and sand removal activities. Most of the SLRR is scoured and stony, although Arroyo Toads could breed in some spots. Also, the river is contained within a channel – this affects juvenile dispersal and adult migration to a degree. Thus, the probability for Arroyo Toad to occur on this property as a breeding species is considered moderate. The chances for *B. microscaphus* to occur onsite as an upland aestivator (within 1 km of known breeding areas in the SLRR) are considered moderate to high.

A protocol Arroyo Toad Field Survey was completed during April, May, and June of 2005 on the Club Estates project site. This nocturnal study identified five species of anurans as being present on the site – including juvenile (toadlet) Arroyo Toads. With the exception of the ubiquitous Western Toad (*Bufo boreas*), all species were restricted to the SLRR floodway and floodplain. The very steep escarpment between the proposed development area on the upper terrace and the lower terrace likely precludes Arroyo Toads (and others) from effectively dispersing to the upper terrace areas, although anurans are clearly well distributed on the lower terrace and in the SLRR.

Least Bell's Vireo Discussion

Bell's Vireo (*Vireo bellii*) is a small, drab gray to green above and white to yellow below, songbird. It has a faint white eye ring and two pale wing bars. The slightly larger subspecies, Least Bell's Vireo (*Vireo bellii pusillus*), has pale whitish cheeks and forehead and greenish wings and tail. Similar species include Hutton's Vireo (*Vireo huttoni*), which has broader wing bars and dull gray underparts, and Gray Vireo (*Vireo vicinior*), which has a longer tail and subtle wing bars. The song is a varied sequence of sharp, slurred phrases that typically end with an alternating, ascending/descending note.

Least Bell's Vireo (LBV) is state and federally listed as an "Endangered Species". This migratory songbird occurs in dense, willow-dominated riparian habitats. Vireos prefer to nest in low, dense, scrubby vegetation in areas of early succession and are particularly dependent on corridors of habitat along rivers and streams. Research on LBV suggests that it is most important to have a dense shrub layer between 0.6 and 3.0 meters from the ground. In breeding areas, this species feeds on insects and small spiders, but its winter (migratory) feeding habits are unknown. A simple nest is built by the male and female in a forked branch at a height of 0.5 to 1.5 meters above the ground. Between 3 to 5 eggs (usually 4) are laid and, depending on location, this species may raise one or two clutches.

The Club Estates site does not support suitable LBV habitat. Most of the vegetation within the SLRR (where LBV might otherwise be expected) lacks the structure (thickets) and species composition required by this species. The development area on the upper terrace supports an active grove and very open vegetation, and the lower terrace supports nearly 100 percent NNG. For this reason, the probability for LBV to occur on the Club Estates site is considered low.

PROJECT IMPACTS

Impacts to biological resources associated with the Club Estates project are assessed as being either “significant” or “less than significant”, as defined by CEQA. The determination of impact significance is based on one or all of the following criteria:

- *have a substantial adverse effect on sensitive habitats, species, or raptor foraging or wildlife movement*
--Or--
- *reduce the ability of the County to implement existing or future conservation programs*
--Or--
- *are out of conformance with applicable ordinances, policies and habitat conservation plans.*

Anticipated impacts to habitats were calculated by determining the acreage of each habitat affected by the site development, including future grading, estimated clearing for fire protection, and road and home construction, as is expected to occur in the future. These are summarized in Table 3.

Measurable direct impacts would result from the development of the Club Estates project site. Direct impacts result from the actual removal of habitat, plants, and animals from the site through grading, brushing, clearing, or thinning. These direct impacts are considered permanent because they result in a conversion of habitats to landscaped areas, structures, groves, roads, etc. Indirect impacts also affect plants, animals, and habitats that occur on or near a project site. These are not the direct result of grading or development, however, but are the result of adjacency to changes in land use. Examples of indirect impacts include introduction of exotic species, human or pet intrusions into natural areas, lighting, traffic, and noise. Indirect impacts are often called "edge effects".

An impact analysis of the various onsite habitats is presented in Table 3. This analysis assumes full development of the northeastern portion of the site, as shown on the TM, with conservation of the southwestern portion in and adjacent to the SLRR.

Direct Impacts

Future development of the project site, as presently proposed, could result in the direct impacts that follow. The acreages below were derived by assuming full development of the upper terrace area with proposed roads, driveways, pads, fire clearing, landscaping, etc.:

1. Up to 30.52 acres of Non-native Grassland could be impacted as a result of site development. The loss of this habitat is considered **significant**, as defined by CEQA and the RPO. Mitigation for this loss is required under CEQA and the RPO.
2. Impacts to 1.00 acre of Non-native Vegetation and 11.21 acres of Orchards and Vineyards habitat are considered **less than significant**, as defined by CEQA and the RPO. Mitigation for the loss of these habitats is not required.
3. Two regulated drainage areas will be modified by the project, impacting approximately 0.10 acre of state wetlands and federal and state “waters”. Impacts to wetlands and waters are considered **significant**, as defined by CEQA. Mitigation for this loss is required under CEQA. Direct impacts to the 3.19 acres of Southern Riparian Scrub vegetation, located in the SLRR, are **not anticipated**.
4. Seven sensitive species are present onsite: Arroyo Toad, Western Spadefoot, Bobcat, Great Horned Owl, Barn Owl, White-faced Ibis, and Red-shouldered Hawk. However, none of these were found in association with the proposed development area. Therefore, direct impacts to these species are **not anticipated**.
5. Two species with a high probability of occurrence onsite (Silvery Legless Lizard and Great Blue Heron - Table 4) could be impacted by the project. Silvery Legless Lizard would occur in low numbers in sandy areas, particularly along the southern edge of the lower terrace. Great Blue Heron likely forages in the SLRR. The onsite populations of these species are not anticipated to be large or regionally significant, as they occur throughout cismontane southern California in areas of suitable habitat. These species would not likely be found in significant numbers in the proposed development area of the site. Therefore, direct impacts to these species are considered **less than significant**, as defined by CEQA and the RPO. Mitigation for impacts to these species is not required.
6. The project site supports 0.55 acre of Open Coast Live Oak Woodland. This habitat area will be avoided by design. Although the majority of the oak woodland is outside of the proposed BOSE, this habitat-type is considered “impact neutral” because the oaks in question are growing on an inaccessible, extremely steep

slope with a ground cover of Iceplant, and will therefore be left untouched. Also, these oaks are within the LBZ and will not be directly impacted by development in any case.

7. A number of existing asphalt roads and existing/proposed easements (water, access) are present within the upper terrace area. The roads will be abandoned, and the existing easements may or may not be utilized for water, access, etc. However, because this area is to be fully developed with residential homes, additional impacts associated with the use of these roads and existing/proposed easements are not anticipated.

Indirect Impacts

Indirect impacts resulting from changes in land use are anticipated. These are primarily edge effects impacting natural areas and adjoining offsite areas. The uses of trails through and along open space areas are one type of edge effect. Other edge effects include lighting or drainage discharge into natural areas, domestic pets that roam into the habitat, etc. Indirect impacts associated with site development are considered potentially **significant**.

The following sensitive species could be indirectly impacted by the project: Arroyo Toad, Western Spadefoot, Bobcat, Great Horned Owl, Barn Owl, White-faced Ibis, and Red-shouldered Hawk. Any indirect impacts to these species, either individually or in the aggregate, are considered potentially **significant**. No direct impacts to any of these species are anticipated under the current project design.

Cumulative Impacts

Section 15064 of the State CEQA Guidelines governs the determination of significant environmental impacts caused by a project. The evaluation of a project's cumulative impacts is discussed in Section 15064(h) of the CEQA Guidelines. Cumulative impacts must be discussed when project impacts, although individually limited, are cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects affecting the same resource (CEQA Guidelines §15064(h)(1)).

A lead agency may determine in an initial study that *"a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant"*. When a project might contribute to a significant cumulative impact, but the contribution will be rendered less than cumulatively considerable through mitigation measures set forth in a mitigated negative declaration, the initial study shall briefly indicate and explain how the contribution has been rendered less than "cumulatively considerable" (CEQA Guidelines §15064(h)(2)). The mere existence of significant cumulative impacts caused by other projects alone shall not constitute

substantial evidence that the proposed project's incremental effects are cumulatively considerable (CEQA Guidelines §15064 (h)(4)).

Project effects that would be considered cumulatively considerable include substantially reducing the habitat of a fish or wildlife species, causing a fish or wildlife population to drop below self-sustaining levels, threatening to eliminate a plant or animal community, or significantly reducing the number or restricting the range of a rare or endangered plant or animal species. None of these apply to TM 5499, however, because all project impacts will be mitigated to a level that is below significance.

With a segment of the SLRR located on the project site, the lower portion of the site could contribute to a future preserve system. The site contains habitat that has been ranked as very high and high value by the County's habitat evaluation model. The project will preserve the most valuable biological resources on the site: the onsite river segment and the entire onsite floodplain area. The open space will be contiguous with very high and high value habitat downstream of the site. Preservation of the upper portion of the site would not contribute significantly to a future preserve system, due to existing residential use and past disturbance.

The TM 5499 project has the potential to significantly degrade the quality of the environment. Other nearby projects impacting the same or similar resources as the subject project include TM 5416 and the Turnbull Residential Subdivision, both of which share common borders with this site, and TPM 20913, TM 5540, TM 5223, and MUP 07-009. These projects will impact Arroyo Toad upland aestivation habitat, at a minimum. Thus, there could be cumulatively significant impacts to this listed species. Development of all nearby projects could result in cumulatively considerable impacts (in the absence of adequate mitigation). However, because all impacts associated with TM 5499 will be mitigated to a level that is "less than significant", the TM 5499 project will not result in impacts that are cumulatively considerable. The adoption of specific mitigation measures as recommended in this report will render all cumulative impacts "less than cumulatively considerable" and thus not significant as defined by CEQA.

MITIGATION

Development of the Club Estates property will result in a direct loss of sensitive habitat, as defined by CEQA and the RPO (Table 3). Mitigation is thus required to ensure that there is no loss of sensitive habitat values or degradation of significant natural areas as a result of future site improvement. To that end, it is recommended that a portion of the property be placed into perpetual protection within a **Dedicated Biological Open Space Easement (BOSE)** intended to preclude the removal or addition of any thing, including structures and vegetation. This BOSE shall be fenced and/or clearly marked with high visibility markers (at 100-foot intervals) along its length to discourage entry into the natural area. This shall limit encroachment from development without impeding

wildlife movement within the BOSE. An RPO **Wetland Buffer** 100 feet wide is contained within the BOSE. In addition, the BOSE also includes an additional 100-300 feet of preserved land outside of the RPO Wetland Buffer. In order to prevent fire clearing impacts to the biological open space, a **Limited Building Zone Easement (LBZ)** is required. This easement is 100 feet wide and extends outward towards development from the BOSE boundary. The LBZ shall prohibit the construction of houses, barns, or other habitable structures that would require fire clearing into the biological open space. Figure 2 presents the proposed BOSE, including the 100-foot RPO wetland buffer, and LBZ easements in relation to the onsite habitat-types.

In order to fully mitigate all impacts to Non-native Grassland and to increase the biological functions and values associated with the Arroyo Toad habitat on this site, mitigation onsite, by preservation and revegetation/enhancement of the “lower terrace” area of the TM 5499 project site, is proposed. To that end, a **Conceptual Revegetation/Habitat Enhancement Mitigation Plan** (Attachment A) has been developed to establish the requisite parameters needed by the County and the Wildlife Agencies.

Proposed Preservation and Revegetation/Enhancement Activities for Non-native Grassland:

Total Onsite Acreage	Mitigation Obligation	Onsite Mitigation Provided
30.52 acres	11.77 acres @ ½-to-1 for impacts to 23.54 acres	4.88 preserved acres ¹ outside of proposed RPO buffer 4.88 x 1 = 4.88 acre-credits
		4.88 revegetated/enhanced acres outside of proposed RPO buffer 4.88 x 1 = 4.88 acre-credits
		2.10 revegetated/enhanced acres inside of proposed RPO buffer 2.10 x 1 = 2.10 acre-credits
	Total Mitigation Obligation	Total Mitigation Provided
	11.77 acre-credits	11.86 acre-credits

The proposed revegetation area is situated within the 100-year floodplain of the SLRR, but outside of the modified SLRR floodway, as shown on the project biological resources map. The floodway supports Southern Riparian Scrub vegetation. The floodplain supports Non-native Grassland, which is currently subject to agricultural activities. The applicants shall cease and desist all agricultural use of the lower terrace, to be followed by the

¹ The 4.88 acres preserved and 4.88 acres revegetated/enhanced cover the same area, but contribute differently towards mitigation functions and values.

active enhancement/restoration of this area. This shall include the planting of Coast Live Oaks and California Sycamores (*Platanus racemosa*) pursuant to a design that will be subject to the approval of a formal Revegetation/Habitat Enhancement Mitigation Plan. The area will be managed in the future by an approved land-use manager pursuant to the approval of a Resource Management Plan.

The “Mitigation Provided” column in the chart above includes mitigation credit provided by enhancing the RPO buffer, which consists of 2.10 acres adjacent to the northeastern side of the San Luis Rey River (SLRR). This buffer will be cleaned up (debris and surface weeds removed) and planted with oaks and sycamores to significantly enhance its biological functions and values to raptors by providing nesting and roosting areas. The “Mitigation Provided” column above further includes additional mitigation credit (beyond straight preservation) provided by enhancing the NNG outside of the RPO buffer. This includes the area of NNG to the northeast of the RPO buffer (4.67 acres) and the strip to the southwest on the other side of the river (0.21 acre). These areas shall also be cleaned up and similarly planted to significantly enhance their biological functions and values to raptors.

The lower terrace currently does not function well as a raptor foraging area or as a viable upland aestivation area for Arroyo Toad. This is because the habitat is very open and exposed, with few avian perching sites. The area is subject to periodic discing, followed by planting with seasonal agricultural crops. The soil tillage during periods of agricultural use precludes the recruitment of native floodplain fringe species, such as oaks and sycamores. It can also impact toads when they are attempting to aestivate in the relatively cool, moist burrows of fossorial rodents, such as Pocket Gophers (*Thomomys bottae*). Discing also results in a lack of surface cover, other than sparse weedy grasses, which results in elevated soil temperatures and desiccating conditions for anurans. The active revegetation of this area will enhance the area for raptor foraging while providing a viable upland aestivation area for Arroyo Toad. The active restoration/enhancement of this area will thus increase the biological functioning of the habitat beyond that of straight preservation, providing adequate CEQA mitigation for Non-native Grassland and raptor foraging impacts.

Although Arroyo Toads are not expected to occur in the development area of the subject site, **specific conservation measures** will be implemented in accordance with the Recovery Plan for this species, which outlines the following (USFWS, 1999):

- Access to the construction sites will use existing routes.
- Footprint disturbance will be defined and minimized via fencing and monitoring.
- A water pollution/erosion control plan will be developed and implemented.
- The project will be constructed entirely out of riparian habitat.
- All construction personnel and biological monitors will be trained by a qualified herpetologist on the identification and avoidance of the Arroyo Toad.

- Equipment storage and fueling will be located away from any suitable habitat and pollution control measures will be always in place during construction.
- Biological monitoring by trained and qualified biologists will be provided to ensure that there are no direct impacts to any toads that might be detected in the development area during site grading.

The following measures have been designed for this project site, considering all relevant factors, such as site location and configuration, potential encroachment concerns, etc.:

- In order to avoid impacts to Arroyo Toads during periods of surface activity and dispersal, vehicular access to the proposed drainage structures along the proposed 20'-wide access easement and to the existing asphalt road (for repairs) near the southern edge of the BOSE shall be limited to the anuran aestivation period. The proposed 20'-wide access easement is located at the toe of the steep slope which separates the upper terrace from the lower terrace. It is thus situated at the interface between the BOSE and the LBZ, just inside the BOSE. The anuran aestivation period is herein defined as the period from 1 August through 1 November. Said vehicular access shall be minimized and continuous biological monitoring of all activities in this area shall be required.
- A qualified biologist shall supervise the installation of exclusionary "toad" fencing (silt fences) around the perimeter of all areas to be affected by grading.
- The "toad" fencing shall be maintained at all times during grading and construction.
- During site grading, a County-certified biological monitor shall be present onsite at all times to assure that protective fencing is maintained and to search for signs of any Arroyo Toads or other sensitive species that could inadvertently be uncovered during grading/construction.
- Within 48 hours prior to initiating any site grading or construction activities, the development area of the property shall be surveyed for Arroyo Toads and/or other sensitive wildlife that might be in harm's way during grading/construction. This survey shall be conducted by a qualified and County-certified biologist experienced with this species.

Should any Arroyo Toads or other listed species be detected prior to grading or construction, the County of San Diego, the USFWS and the CDFG shall be contacted immediately for guidance. Also, because the project will modify occupied habitat (even though in a beneficial way) a federal "take" permit under Section 7 or 10 of the Endangered Species Act will be required as a condition of the Final Map. The above specific conservation measures are intended to avoid impacts (and hence the need for mitigation) pursuant to CEQA. Thus, they are not "mitigation" but rather a tool to ensure compliance with CEQA.

Because the project will impact regulated state wetlands and state and federal waters, it will be necessary to **obtain various Regulatory Agency permits**, including a California Department of Fish and Game 1600-series

Streambed Alteration Agreement, a U.S. Army Corps of Engineers Section 404 Permit, and California Clean Water Certification from the Regional Water Quality Control Board pursuant to Section 401. These agencies function in a permitting capacity in the event of impacts to jurisdictional wetlands or waters. Mitigation for impacts to 0.10 acre of non-wetland waters shall either be provided onsite (by opening up the SLRR floodway for wetlands creation), or offsite in an agency-approved location. Mitigation land for non-wetland waters shall not overlap the area(s) identified as mitigation for Arroyo Toad, Non-native Grassland, and raptor foraging. The securement of these permits does not constitute CEQA mitigation, although they are intended to ensure that the project complies with CEQA requirements.

It is further recommended that the project prepare, adopt, and implement a **Resource Management Plan (RMP)** to designate areas for biological preservation, eliminate future unauthorized intrusion into biologically sensitive areas, and maintain long-term habitat viability. The preparation and implementation of recommendations contained within such a document shall be made a condition of project approval. The RMP (see Attachment B) will contain guidelines for the stewardship, maintenance, biological monitoring, and overall management of the open space and wetland restoration area. The plan will include, but not be limited to, methods to control human and animal encroachment, weed abatement, revegetation monitoring, sensitive species monitoring, and restrictions to recreational use of the open space. Habitat supporting sensitive species, such as Arroyo Toad, Western Spadefoot, Bobcat, Great Horned Owl, Barn Owl, White-faced Ibis, Red-shouldered Hawk, and others will be conserved in the BOSE, and the RMP will contain provisions to ensure long-term viability of the habitat for these and other sensitive species. The plan will specify remediation, as necessary in perpetuity, to maintain habitat viability. Certain unavoidable losses associated with a greater human presence in the vicinity of this property ("edge effects") will be minimized through implementation of the RMP, including provisions to erect vehicular access barrier fencing and other measures.

Site brushing, grading, and/or the removal of vegetation within 300 feet of any potential migratory songbird nesting location is not permitted during the songbird/raptor breeding season, defined as from 15 January to 31 August of each year. This is required in order to ensure compliance with the federal Migratory Bird Treaty Act and Sections 3503, 3503.5 and 3513 of the California Fish and Game Code, which prevent the "take" of eggs, nests, feathers, or other parts of most native bird species. Limiting activities to the non-breeding season will minimize chances for the incidental take of migratory songbirds or raptors. Should it be necessary to conduct brushing or grading activities during the songbird breeding season, a preconstruction nesting survey of all areas within 300 feet of the proposed activity will be required. The results of the survey will be provided in a report to the Director, Department of Planning and Land Use, and the Wildlife Agencies for concurrence with the conclusions and recommendations.

**FIGURE 2. BIOLOGICAL RESOURCES, WETLANDS/WATERS, AND OPEN SPACE EASEMENT:
CLUB ESTATES PROJECT, PAUMA VALLEY**

(see Biological Resources Exhibit, attached)

TABLE 2. FLORA AND FAUNA DETECTED - CLUB ESTATES PROJECT

<u>Scientific Name</u>	<u>Common Name</u>
<u>Plants</u>	
<i>Amaranthus albus</i> *	White Tumbleweed
<i>Ambrosia acanthicarpa</i>	Annual Burweed
<i>Ambrosia psilostachya</i>	Western Ragweed
<i>Amsinckia intermedia</i>	Fiddleneck
<i>Anagallis arvensis</i> *	Scarlet Pimpernel
<i>Antirrhinum nuttallianum</i>	Nuttall's Snapdragon
<i>Aptenia cordifolia</i> *	Red Apple Iceplant
<i>Artemisia californica</i>	California Sagebrush
<i>Artemisia douglasiana</i>	Douglas Sagewort
<i>Baccharis glutinosa</i>	Mule Fat
<i>Brachypodium distachyon</i> *	Purple False-brome
<i>Brassica geniculata</i> *	Perennial Mustard
<i>Brassica rapa</i> *	Field Mustard
<i>Bromus diandrus</i> *	Ripgut Brome
<i>Bromus rubens</i> *	Foxtail Brome
<i>Calandrinia ciliata</i> var. <i>menziesii</i>	Red Maids
<i>Camissonia</i> sp.	Primrose
<i>Castilleja exserta</i> ssp. <i>exserta</i>	Purple Owl's Clover
<i>Chaenactis artemisiaefolia</i>	White Pincushion
<i>Chaenactis glabriuscula</i>	Yellow Pincushion
<i>Chamaesyce maculata</i> *	Spotted Spurge
<i>Chenopodium murale</i> *	Goosefoot
<i>Cnicus benedictus</i>	Blessed Thistle
<i>Conyza canadensis</i> *	Common Horseweed
<i>Cynodon dactylon</i> *	Bermuda Grass
<i>Cyperus</i> sp.	Sedge
<i>Epilobium</i> sp.	Fireweed
<i>Eremocarpus setigerus</i>	Dove Weed
<i>Erodium cicutarium</i> *	Red-stem Stork's-bill
<i>Eucalyptus camaldulensis</i> *	Murray Red Gum
<i>Festuca megalura</i> *	Foxtail Fescue
<i>Filago gallica</i> *	Narrow-leaf Filago
<i>Gnaphalium palustre</i>	Cudweed
<i>Hedypnois cretica</i> *	Hedypnois
<i>Heliotropium curvassavicum</i>	Wild Heliotrope
<i>Heterotheca grandiflora</i> *	Telegraph Weed
<i>Hordeum murinum</i> *	Wild Barley
<i>Lactuca serriola</i> *	Wild Lettuce
<i>Lamarckia aurea</i> *	Goldentop
<i>Lepidium</i> sp.	Peppergrass
<i>Linaria canadensis</i>	Common Toadflax
<i>Lotus hamatus</i>	Grab Lotus
<i>Lotus purshianus</i>	Spanish Clover
<i>Lupinus bicolor</i>	Bicolor Lupine
<i>Lythrum hyssopifolium</i>	Loosestrife
<i>Malva parviflora</i> *	Cheeseweed
<i>Medicago polymorpha</i> *	Bur Clover
<i>Melilotus indicus</i> *	Indian Sweet Clover

TABLE 2. FLORA AND FAUNA DETECTED - CLUB ESTATES PROJECT (continued)

<u>Scientific Name</u>	<u>Common Name</u>
<u>Plants (cont)</u>	
<i>Mesembryanthemum edule</i> *	Hottentot Fig
<i>Microseris lindleyi</i>	Silver Puffs
<i>Mimulus floribundus</i>	Seep Monkeyflower
<i>Nicotiana glauca</i> *	Tree Tobacco
<i>Opuntia ficus-indica</i> *	Indian Fig
<i>Oxalis pes-caprae</i> *	Sorrel
<i>Panicum capillare</i>	Western Witch Grass
<i>Paspalum dilatatum</i> *	Orchard Grass
<i>Polygonum lapathifolium</i>	Willow Weed
<i>Platanus racemosa</i>	California Sycamore
<i>Polygonum arenastrum</i> *	Yard Knotweed
<i>Polypogon monspeliensis</i> *	Rabbitfoot Grass
<i>Portulaca oleracea</i>	Common Purslane
<i>Phoradendron tomentosum</i>	Long-spike Mistletoe
<i>Quercus agrifolia</i>	Coast Live Oak
<i>Raphanus sativus</i> *	Wild Radish
<i>Ricinus communis</i> *	Castor Bean
<i>Rorippa nasturtium-aquaticum</i> *	Watercress
<i>Rumex crispus</i> *	Curly Dock
<i>Schismus barbatus</i> *	Schismus
<i>Silene gallica</i> *	Common Catchfly
<i>Sisymbrium altissimum</i> *	Tumble Mustard
<i>Sonchus asper</i> *	Sow Thistle
<i>Sonchus oleraceus</i> *	Sow Thistle
<i>Stylocline gnaphthalioides</i>	Everlasting Nest-straw
<i>Taraxacum officinale</i>	Common Dandelion
<i>Torilis arvensis</i> *	Hedge-parsley
<i>Tribulus terrestris</i> *	Puncture Vine
<i>Typha latifolia</i>	Cattails
<i>Veronica</i> sp.	Speedwell
<i>Xanthium strumarium</i> *	Cocklebur
<u>Birds</u>	
<i>Anas platyrhynchos</i>	Mallard
<i>Aphelocoma coerulescens</i>	Scrub Jay
<i>Archilochus anna</i>	Anna's Hummingbird
<i>Bubo virginianus</i>	Great Horned Owl
<i>Buteo jamaicensis</i>	Red-tailed Hawk
<i>Buteo lineatus</i>	Red-shouldered Hawk
<i>Carpodacus mexicanus</i>	Housefinch
<i>Charadrius vociferus</i>	Killdeer
<i>Corvus corax</i>	Common Raven
<i>Empidonax difficilis</i>	Western Flycatcher
<i>Hirundo pyrrhonota</i>	Cliff Swallow
<i>Melanerpes formicivorus</i>	Acorn Woodpecker
<i>Mimus polyglottos</i>	Mockingbird
<i>Phainopepla nitens</i>	Phainopepla
<i>Plegadis chihi</i>	White-faced Ibis

TABLE 2. FLORA AND FAUNA DETECTED - CLUB ESTATES PROJECT (continued)

<u>Scientific Name</u>	<u>Common Name</u>
<u>Birds (cont)</u>	
<i>Psaltirparus minimus</i>	Bushtit
<i>Sturnus vulgaris</i> *	Starling
<i>Tyrannus verticalis</i>	Western Kingbird
<i>Tyto alba</i>	Barn Owl
<i>Zenaida macroura</i>	Mourning Dove
<u>Mammals</u>	
<i>Lynx rufus</i>	Bobcat
<i>Peromyscus maniculatus</i>	Deer Mouse
<i>Spermophilus beecheyi</i>	California Ground Squirrel
<i>Sylvilagus audubonii</i>	Desert Cottontail
<i>Thomomys bottae</i>	Valley Pocket Gophers
<u>Amphibians</u>	
<i>Bufo californicus</i>	Arroyo Toad
<i>Bufo boreas</i>	Western Toad
<i>Hyla regilla</i>	Pacific Treefrog
<i>Rana catesbeiana</i>	Bullfrog
<i>Scaphiopus hammondi</i>	Western Spadefoot
<u>Fish</u>	
<i>Gambusia affinis</i> *	Mosquito Fish
<u>Reptiles</u>	
<i>Sceloporus occidentalis</i>	Western Fence Lizard
<i>Uta stansburiana</i>	Side-blotched Lizard
<u>Butterflies</u>	
<i>Artogeia rapae</i> *	Cabbage White
<i>Junonia coenia</i>	Buckeye
<i>Vanessa cardui</i>	Painted Lady

Total = 79 species of plants

36 species of animals (20 birds, 5 mammals, 2 reptiles, 5 amphibians, 1 fish, 3 butterflies)

* = non-native taxon **bold = sensitive species**

TABLE 3. IMPACT ANALYSIS: HABITATS: CLUB ESTATES PROJECT

Biological Resource	Total Acres Onsite (Pre-development)	Acres Impacted (Post-development)	Acres Preserved (Post-development)	Mitigation Required	Mitigation Provided Onsite
Southern Riparian Scrub	3.19 acres	none	3.19 acres	none	avoidance
Open Coast Live Oak Woodland	0.55 acre	none	0.08 acre ²	none	n/a
Non-native Grassland	30.52 acres	23.54 acres	6.98 acres	11.77 acres (23.54 @ ½:1)	11.86 acres via avoidance and revegetation ^{3,4}
Non-Native Vegetation	1.00 acres	1.00 acres	none	none	n/a
Urban/Developed	1.74 acres	n/a	n/a	none	n/a
Orchards and Vineyards	11.21 acres	11.21 acres	none	none	n/a
Unvegetated state wetlands and state/ Federal waters	0.10 acre	0.10 acre	none	0.30 acre (0.10 acre @ 3:1)	0.30 acre onsite or offsite ⁵
Totals	48.31 acres	35.85 acres	10.25 acres	12.07 acres	12.16 acres

² Although the majority of the Open Coast Live Oak Woodland is outside of the proposed BOSE, this habitat-type is considered impact neutral because the oaks in question are growing on an inaccessible, extremely steep slope and will therefore be left untouched. Also, these oaks are within the LBZ and will not be directly impacted by development.

³ Revegetation mitigation will be provided for impacts to this habitat via the conversion of the lower terrace to floodplain fringe vegetation by the planting of riparian oaks and sycamores and the removal of barriers to dispersal currently present at the edge of the SLRR. This will restore viable Arroyo Toad transitional upland habitat.

⁴ The lower terrace, which supports periodic agriculture (mapped as NNG during the site surveys) will be protected and converted to viable floodplain fringe, which will continue to function as an open grassland-type habitat with scattered trees and shrubs. The functions and habitat values of the Non-native Grassland will thus be retained in this manner, while providing an opportunity to improve the wildlife corridor and offset impacts to jurisdictional waters.

⁵ Mitigation for impacts to unvegetated state wetlands and state/federal waters will either occur onsite, via opening up sections of the SLRR floodway with the approval of the Regulatory Agencies, or offsite in an agency-approved location.

TABLE 4. SENSITIVE SPECIES KNOWN FROM THE VICINITY - CLUB ESTATES PROJECT

Scientific Name	Common Name	Federally Endangered	Federally Threatened	State Endangered	State Threatened	County Sensitive Plant List	Coastal Sage Scrub	Mixed Chaparral	Grassland	Riparian	Oak Woodland	Chamise Chaparral	Mixed Conifer	Close Cone Forest	Pinon-Juniper	Freshwater Marsh	Desert Scrub	Desert Wash	Salt or Alkali Marsh	Vernal Pools	Montane Meadow	Coastal or Desert Dune	Lakes and Bays	Probability of Occurrence
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea					A		X	X	X	X	X								X				L
<i>Harpagonella palmeri</i>	Palmer's grappling hook					D	X		X			X												L
<i>Juncus acutus leopoldii</i>	Southwestern spiny rush					D				X	X					X								M
<i>Ophioglossum californicum</i>	California adder's tongue fern					D		X	X											X				L
<i>Quercus engelmannii</i>	Engelmann oak					D				X	X													L
<i>Accipiter cooperi</i>	Cooper's hawk						X	X	X	X	X	X	X	X							X			M
<i>Accipiter striatus</i>	Sharp-shinned hawk						X	X		X	X	X	X	X										M
<i>Ammodramus savannarum</i>	Grasshopper sparrow									X														M
<i>Anniella pulchra pulchra</i>	Silvery legless lizard						X		X	X												X		H
<i>Antrozous pallidus</i>	Pallid bat						X	X	X	X	X	X	X	X	X	X		X	X			X		M
<i>Aquila chrysaetos</i>	Golden eagle						X	X	X		X	X	X	X	X									M
<i>Ardea herodias</i>	Great blue heron								X							X						X		H
<i>Bassariscus astutus</i>	Ringtail							X		X	X	X												L
<i>Bufo microscaphus californicus</i>	Arroyo toad	X								X														O
<i>Buteo lineatus</i>	Red-shouldered hawk									X	X													O
<i>Cathartes aura</i>	Turkey vulture						X	X	X	X	X	X	X	X										M
<i>Chaetodipus californicus femoralis</i>	Dulzura California pocket mouse						X	X	X		X	X	X											M
<i>Chaetodipus fallax fallax</i>	NW San Diego pocket mouse						X	X	X			X					X	X						M
<i>Circus cyaneus hudsonius</i>	Northern harrier						X		X							X			X					M
<i>Clemmys marmorata pallida</i>	Southwestern pond turtle									X						X						X		M
<i>Cnemidophorus hyperythrus</i>	Orange-throated whiptail						X	X	X	X		X												M
<i>Cnemidophorus tigris multiscutatus</i>	Coastal western whiptail							X		X	X	X												M
<i>Coleonyx variegatus abbottii</i>	San Diego banded gecko						X		X			X												M
<i>Corynorhinus townsendii</i>	Townsend's big-eared bat							X	X	X	X	X	X	X	X		X	X			X			M
<i>Danaus plexippus</i>	Monarch butterfly							X	X		X										X			M
<i>Dendroica petechia brewsteri</i>	Yellow warbler										X													M
<i>Diadophis punctatus similis</i>	San Diego ringneck snake							X	X		X	X	X	X	X									M
<i>Dipodomys stephensi</i>	Stephen's kangaroo rat	X			X		X		X															L
<i>Elanus caeruleus</i>	Black-shouldered kite								X	X														M
<i>Empidonax trailii extimus</i>	Southwestern willow flycatcher	X								X														L
<i>Eremophila alpestris actis</i>	Horned lark								X												X			M
<i>Euderma maculatum</i>	Spotted bat									X		X	X	X				X			X			M
<i>Eumops perotis californicus</i>	Greater western mastiff bat						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	M
<i>Falco mexicanus</i>	Prairie falcon								X								X	X						L
<i>Felis concolor</i>	Mountain lion						X	X		X	X	X	X	X	X		X	X			X			L
<i>Ictera virens</i>	Yellow-breasted chat									X														M
<i>Lanius ludovicianus</i>	Loggerhead shrike						X		X	X	X						X	X						M

TABLE 4. SENSITIVE SPECIES KNOWN FROM THE VICINITY - CLUB ESTATES PROJECT

Scientific Name	Common Name	Federally Endangered	Federally Threatened	State Endangered	State Threatened	County Sensitive Plant List	Coastal Sage Scrub	Mixed Chaparral	Grassland	Riparian	Oak Woodland	Chamise Chaparral	Mixed Conifer	Close Cone Forest	Pinon-Juniper	Freshwater Marsh	Desert Scrub	Desert Wash	Salt or Alkali Marsh	Vernal Pools	Montane Meadow	Coastal or Desert Dune	Lakes and Bays	Probability of Occurrence
<i>Larus californicus</i>	California gull (Non-breeding)								X							X			X		X	X	X	M
<i>Lasiurus blossevillei</i>	Western red bat									X	X		X	X							X			M
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit						X	X	X		X	X	X	X										M
<i>Macrotus californicus</i>	California leaf-nosed bat						X	X		X							X	X						M
<i>Myotis ciliolabrum</i>	Small-footed myotis							X		X	X	X	X	X	X			X			X			M
<i>Myotis yumanensis</i>	Yuma myotis						X	X	X	X	X	X	X	X	X	X			X	X	X		X	M
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat						X	X		X	X	X												M
<i>Nyctinomops macrotis</i>	Big free-tailed bat						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	M
<i>Nyctinomops femorosaccus</i>	Pocketed free-tailed bat						X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	M
<i>Odocoileus hemionus</i>	Southern mule deer						X	X	X	X	X	X	X	X	X		X	X			X			L
<i>Onychomys torridus ramona</i>	Southern grasshopper mouse						X	X	X			X												L
<i>Perognathus longimembris brevinasus</i>	Los Angeles little pocket mouse						X	X	X			X										X		M
<i>Phrynosoma coronatum blainvillei</i>	San Diego horned lizard						X	X	X			X												M
<i>Rana aurora draytoni</i>	California red -legged frog		X							X						X					X		X	L
<i>Scaphiopus hammondi</i>	Western spadefoot toad						X	X	X	X	X	X				X				X				O
<i>Sialia mexicana</i>	Western bluebird									X	X		X											M
<i>Taxidea taxus</i>	American badger						X	X	X		X	X	X		X		X	X			X			L
<i>Thamnophis hammondi</i>	Two stripe garter snake									X						X								M
<i>Thamnophis sirtalis novum</i>	South Coast garter snake									X						X								M
<i>Tyto alba</i>	Common barn-owl									X	X													O
<i>Vireo bellii pusillus</i>	Least Bell's vireo	X		X						X														L

Probability of Occurrence Codes for Table 4

L – Low Probability; rare species in area, and no significant habitat (animals), or distinctive perennial that would not have been missed if present onsite (plants). Most of these species occur on habitat not found on the Club Estates site, including vernal pools, native grasslands, mafic soils, etc. California Red-legged Frogs and Tricolored Blackbird are two examples of species that fit into this category. Both are very rare in southern California. Although Stephen's Kangaroo Rat is known from the vicinity in habitat similar to that found onsite, all records are apparently very old, with no recent sightings in the vicinity.

M – Moderate Probability; could be expected to occur onsite on at least an occasional basis, based on habitat quality (animals), or could occur onsite, but rare, and/or poorly known (plants). Most of these species occur in habitat similar to that found onsite, although they may or may not utilize the Club Estates property. Native bats and uncommon but cryptic reptiles are examples of species that have a moderate probability of occurring onsite.

H – High Probability; certain to occur onsite on a regular basis (animals), but cryptic, or ephemeral species known from the immediate vicinity, but seasonal in occurrence (plants). Most of these species are expected to use the site, but are difficult to reliably detect. Examples include various fossorial reptiles, wide-ranging predators, etc.

O – Observed; see text for detailed discussion.

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ATTACHMENT A

*CONCEPTUAL REVEGETATION/HABITAT ENHANCEMENT MITIGATION PLAN FOR
CLUB ESTATES*

CONCEPTUAL REVEGETATION/HABITAT ENHANCEMENT MITIGATION PLAN
FOR
CLUB ESTATES

OVERVIEW

The Resolution of Approval for the Club Estates project will require that certain mitigation measures be implemented prior to recordation of a Final Map for this project. With respect to biological resources, one of these measures will be the preparation and implementation of a Revegetation Mitigation Plan in order to offset project-related impacts to Non-native Grassland and to increase the biological functions and values necessary to support the Arroyo Toad and raptors on this site. This plan will also provide a mechanism to mitigate impacts to jurisdictional wetlands and waters. However, mitigation land for non-wetland waters shall not overlap the area(s) identified as mitigation for Arroyo Toad, Non-native Grassland, and raptor foraging.

The California Department of Fish and Game (CDFG), U.S. Army Corps of Engineers (ACOE) and California Regional Water Quality Control Board (CRWQCB) will be Responsible Agencies for this project, pursuant to CEQA. Because of measurable impacts to wetlands and waters, the developer will be required to obtain (1) a Streambed Alteration Agreement with CDFG in compliance with CDFG Code Section 1600, (2) an ACOE Section 404 Permit, and (3) California Clean Water Certification from the CRWQCB pursuant to Section 401 of the Clean Water Act. These agencies, in concert, will likely require either onsite or offsite mitigation for impacts to 0.10 acre of unvegetated drainage (non-wetland waters), which is a regulated resource. The Resolution of Approval for Club Estates will also require obtaining these agency-issued permits

To that end, we propose a comprehensive Conceptual Revegetation Mitigation Plan for the Club Estates project. This plan would provide onsite mitigation for all habitat impacts, including 0.10 acre of unvegetated drainage and 23.54 acres of Non-native Grassland. These activities would occur within biological open space easement on the lower terrace of the property and possibly at the margins of the floodway of the SLRR.

All measurable wetland/waters impacts will be mitigated for at a 3-to-1 ratio, with a minimum 1-to-1 being wetlands creation. In addition, all created and/or enhanced wetlands will require no less than five years of biological monitoring and reporting, as well as agency permitting, as discussed above. At this time, weedy areas in open space (onsite) on the lower terrace are proposed for restoration and habitat creation. To that end, it is recommended that the applicant prepare and implement, to the satisfaction of the Director of Planning and Land Use and the Regulatory Agencies, a **Final Revegetation/Habitat Enhancement Mitigation Plan** intended to compensate for the loss of vegetation associated with site development.

REVEGETATION PLAN CONCEPTS

The Final Revegetation/Habitat Enhancement Mitigation Plan prepared for Club Estates shall address, at a minimum, the following:

- All specific, improvement-related impacts (precise amount of acreage impacted, based on final engineering)

As currently designed, the Club Estates project impacts approximately 0.10 acre of unvegetated drainage and 23.54 acres of Non-native Grassland vegetation. This will be refined prior to the Final Map.

- Engineered line-drawings, planting profiles, and irrigation system layout

Drawings must show how the Grading and Improvement Plans reconcile with the revegetation areas, and how the project will be physically separated from sensitive areas. Open space areas to be clearly shown on all exhibits.

- Types of materials to be used including container sizes, species ratios, total quantities, etc.

Native seed and plant stock sources are to be specified, plant palette to be compatible with indigenous vegetation, etc. Plant materials shall be obtained from sources that provide local (San Diego County) stock. The plant palette shall include Coast Live Oaks, California Sycamores, and other native species compatible with the SLRR floodplain.

- Specify site preparation activities

The revegetation area will need to be hand cleared of dead vegetation, weedy annuals, and surface debris. Soil preparation, including the export of contaminated substrates, use of pesticides, etc. shall be discussed.

- Define a specific area or areas to be used for replanting

The final design of the restoration area would be specified in the Final Revegetation Mitigation Plan. After approval of the Final Revegetation Mitigation Plan, the lower terrace, which supports disturbed areas adjacent to the SLRR, shall be cleared and planted with native floodplain fringe vegetation. Additional riparian wetland vegetation may be also planted at the edge of the floodway of the SLRR, assuming that the Regulatory Agencies approve modifications to the floodway.

- Specify planting program and habitat protection measures

Temporary construction fencing in the lower terrace is required. Permanent fencing/signage of the biological open space is required.

- Specify biological monitoring periods and success criteria

Monitoring shall occur no less than quarterly for year 1, semiannually for years 2 and 3, and annually for years 4 and 5. Monitoring reports shall be submitted on the same schedule.

- Specify required maintenance activities

Maintenance shall consist of fencing maintenance, construction monitoring, trash removal, weeding, etc. on an ongoing basis.

ATTACHMENT B

*CONCEPTUAL RESOURCE MANAGEMENT PLAN FOR
CLUB ESTATES*

**CONCEPTUAL RESOURCE PROTECTION PLAN
FOR
CLUB ESTATES (outline)**

I. INTRODUCTION

A. Purpose of Management Plan

This section will discuss the need, justification, and goals of the Resource Management Plan (RMP) for TM 5499, with an overview of site resources to be conserved. Such resources include the federally endangered Arroyo Toad, riparian resources associated with the SLRR, and raptor foraging areas in the lower terrace of the site.

B. Acquisition History

This section will discuss the history of the property, including present ownership and anticipated owner transference.

C. Agency Review and Coordination

This section will discuss agency review, including review and coordination with the U.S. Fish and Wildlife Service and the California Department of Fish and Game.

II. IMPLEMENTATION

A. Responsible Parties/Designation of Manager

This section will describe in detail all parties responsible for long-term management of the preserve, including the designation of a preserve manager, the responsibilities of the habitat manager, and related responsibilities. To that end, discussions regarding long-term management of the preserve were recently (April 2008) initiated with the Upper San Luis Rey Resource Conservation District. The District is a legal subdivision of the State of California dedicated to the protection of land and was organized pursuant to the Public Resources Code of California. The District has docketed management of this land for consideration at its July 2008 Board of Directors meeting. District Staff are recommending approval.

B. Financial Responsibility/Mechanism

1. Lighting and Landscape District or Zone

This section will discuss any lighting and/or landscaping considerations and how they apply to the project site with respect to minimizing lighting and landscaping edge effects into the preserve.

2. Endowment

This section will describe the non-wasting endowment required to fund perpetual habitat management, including third-party, non-profit retention of the endowment funds, the dispensation of funds generated by the endowment, etc. Discussions regarding the funding of perpetual habitat management of the preserve have been initiated with the Upper San Luis Rey Resource Conservation District.

3. Other

This section will discuss any other related financial considerations, including start-up costs and timelines associated with implementation.

C. Cost Estimate/Budget

This section will detail costs associated with implementation, including fencing and access control if needed, site clean-up, erosion control, revegetation if needed, initial biological baseline data collecting, and related costs for perpetual biological management and monitoring. Preliminary discussions have been made with the Upper San Luis Rey Resource Conservation District regarding this concern, and it is anticipated that a Property Record Analysis (PAR) will be prepared for the project.

III. PROPERTY DESCRIPTION

A. Legal Description

This section will include a detailed legal description of the site, including a legal description of the biological open space easement, any encumbrances, etc.

B. Geographical Setting

This section will describe the site's setting, including physiographic constraints, slope, aspects, etc.

C. Property Boundaries and Adjacent Lands

This section will identify the site's boundaries and describe adjoining parcels with a detailed description of adjoining land uses

D. Geology, Soils, Climate, Hydrology

This section will describe onsite soils, climatic conditions, hydrology, geology, etc.

E. Trails

(not applicable)

IV. CULTURAL RESOURCES DESCRIPTION

This section discusses whatever cultural and historical resources are associated with the project site, if any.

V. HABITAT AND SPECIES DESCRIPTION

A. Vegetation Communities, Habitats and Plant Species

- Each onsite community will be described based on indicator species, etc.
- A discussion of the quality of each of the habitat-types will be provided
- All Rare, Threatened, and/or Endangered Plant Species occurring on the site will be listed and discussed.

B. Wildlife Species

1. A list of all species of wildlife known or reported to occur onsite will be compiled and discussed
2. Each species will be correlated with plant associations and/or other habitat factors
3. All Rare, Threatened, and/or Endangered Animal Species occurring on the site will be listed and discussed

C. Overall Biological Value

The overall biological value of the preserve will be discussed, including linkage to other conserved lands, etc.

V. MANAGEMENT ELEMENTS AND GOALS

A. Biological Elements: Goals & Tasks

This section will discuss the overall goals of biological preservation and any associated specific tasks to further those goals. Anticipated specific tasks include (but are not limited to) the following:

1. Periodic Arroyo Toad Surveys

It is anticipated that protocol surveys for this species will be conducted every three years. The details of Arroyo Toad monitoring, including site-specific methods, will be discussed in detail in the final RMP.

2. Habitat Monitoring

It is anticipated that habitat monitoring field surveys will be provided two times each year – once in the early summer (after 15 June) and once in the winter (before 1 December or before the first seasonal rains). The details of habitat monitoring, including site-specific methods, will be discussed in detail in the final RMP.

3. Habitat Maintenance for Arroyo Toads

The details of habitat maintenance, including site-specific methods, will be discussed in detail in the final Revegetation/Habitat Enhancement Mitigation Plan for the project. Once the site is self-sustaining and the habitat has been adequately enhanced, little in the way of habitat maintenance for Arroyo Toads is anticipated.

4. Predators

The details of predator control, including site-specific methods, will be discussed in detail in the final RMP. Predator control, if necessary, may include trapping, although extensive amounts of active predator control are not anticipated because problems with predators are not anticipated. The only exception to this would be the presence of Bullfrogs (*Rana catesbiana*), which are known from the SLRR and which prey on Arroyo Toads.

5. Trash Removal

It is anticipated that trash removal will occur on an as-needed basis. The details of trash removal, including site-specific methods, will be discussed in detail in the final RMP. Trash removal will be restricted to late summer and fall months to minimize chances for Arroyo Toad mortality. Extensive trash removal efforts are not anticipated.

6. Exotic and Invasive Plant Removal

It is anticipated that exotic and invasive plant removal will occur on an as-needed basis. The details of exotic and invasive plant removal, including site-specific methods, will be discussed in detail in the final RMP. Exotic and invasive plant removal activities will be restricted to late summer and fall months to minimize chances for Arroyo Toad mortality.

7. Flooding

Flooding is not anticipated because of channelization of the adjacent SLRR. However, in the unlikely event of flooding, contingency measures will be developed in consultation with the County and the Wildlife Agencies, based on site-specific considerations.

8. Maintenance of Fencing and Signage

The details of fencing and sign maintenance, including site-specific methods, will be discussed in detail in the final RMP. All maintenance activities will be restricted to late summer and fall months to minimize chances for Arroyo Toad mortality.

B. Cultural Resources Elements: Goals & Tasks

This section will discuss the overall goals of cultural resource preservation and any associated specific tasks to further those goals.

C. Public Use Elements: Goals & Tasks

This section will discuss the overall goals of public use of the open space, if any, and any associated specific tasks to further those goals.

D. Operations Elements: Goals & Tasks

This section will discuss the operations management and any associated specific tasks to enhance that management.

E. Fire Management Element: Goals & Tasks

This section will discuss the overall goals of fire management and any associated specific tasks to further that goal.

F. Biological and Cultural Resources Monitoring Element: Goals & Tasks

This section will discuss the goals of biological and cultural monitoring of the open space and any specific tasks associated with that monitoring.

VI. OPERATIONS SUMMARY

A. Operations Tasks to Implement Plan

This section will define those specific operations tasks to implement the RMP

B. Existing Staff and Additional Personnel Needs Summary

This section will summarize personnel needs and tasks specific to each position

C. Operations Summary

This section will provide a summary of operations, including management.

VII. REFERENCES

All citations within the final RMP will be listed in this section of the report

APPENDICES:

The following items will be attached to the report as appendices:

1. Property Descriptions – to be provided
2. Regional Location Map – to be provided
3. Site Location Map – to be provided
4. Biological Resources Map – to be provided
5. Animal and Plant species inventories – to be provided
6. MOU/MA – to be provided

LIST OF FIGURES

A list of figures will be assembled, listing all maps, drawings, charts, etc along with page number(s).

LIST OF TABLES

A list of tables will be assembled along with page number(s).

ATTACHMENT C

*45-DAY SURVEY REPORT FOR
ARROYO (SOUTHWESTERN) TOAD
AS SUBMITTED TO THE U.S FISH AND WILDLIFE SERVICE*

V/O Pauma Partners; 45-Day Survey Results for Southwestern Arroyo Toad (<i>Bufo microscaphus californicus</i>), Pauma Valley, California						
Location:	The subject site is a 43.8-acre parcel situated south of Hwy 76 west of the Pauma Valley Country Club in the Pala/Pauma Valley Planning Area of unincorporated San Diego County. Observation locations shown on attached USGS map.					
Habitat Description:	Parcel of mostly vacant agricultural adjoining the San Luis River. Upland habitats associated with site include Agriculture, Floodplain Fringe vegetation, and disturbed areas. AST habitat quality moderate.					
Survey Methodologies	Pursuant to survey protocol recommendations, specimens were visually searched for utilizing hand-held Coleman® lanterns to assist with detections, and the trills characteristic of this species were listened for at all times. Weather conditions were conducive to toad surveying on each of the selected dates with dark skies and no wind or rain. Particular attention was paid to areas that had the highest probability of supporting toads.					
Name of personnel	Vince Scheidt, Shannon Allen, Di Anna Abdo, Ryan Scheidt, & Katie Boehm	Vince Scheidt & Allison Scheidt	Vince Scheidt & Shannon Allen	Vince Scheidt & Shannon Allen	Vince Scheidt & Shannon Allen	Vince Scheidt, Allison Scheidt, & Ryan Scheidt
Acres surveyed	ca ~ 12 acres	ca ~ 12 acres	ca ~ 12 acres	ca ~ 12 acres	ca ~ 12 acres	ca ~ 12 acres
Date of survey	28-Apr-04	16-May-05	23-May-05	30-May-05	6-Jun-05	13-Jun-05
Time	8:40-11:30 p.m.	9:00-11:40 p.m.	9:00-11:30 p.m.	8:40-10:30 p.m.	8:40-10:30 p.m.	9:00-11:45 p.m.
Temperature	Partially cloudy to clearing, low 60's	Partially cloudy to clearing, low 60's	Clear, low to mid 60's	Clear, mid 50's to low 60's	Clear, cool, mid 50's to low 60's	Clear, cool, mid to high 60's, no wind
# of <i>Bufo boreas</i>	22	43 + 47 toadlets	22 + 72 toadlets	25 + 16 toadlets	43 + 18 toadlets	35 + 1 toadlets
# of <i>Rana catesbeiana</i>	0	2	3	2	none	2
# of <i>Scaphiopus hammondi</i>	5 toadlets	4 toadlets	1 + 4 toadlets	1	6 toadlets	1 toadlet
# of <i>Hyla regilla</i>	10 + calls	24 + calls	13 + calls	1	3	2
# of Arroyo Toads	2 toadlets	none	18 toadlets	7 toadlets	16 toadlets	none

ATTACHMENT D

*CALIFORNIA NATURAL DIVERSITY DATA BASE FORMS
AS SUBMITTED TO THE CALIFORNIA DEPARTMENT OF FISH AND GAME*

California Native Species Field Survey Form

Mail to:
Natural Diversity Database
California Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95814

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work: 6 - 6 - 2005
month (mm) date (dd) year (yyyy)

Scientific Name: Bufo californicus

Common Name: Arroyo Toad

Species Found? ☒ yes ☐ no If not, why? _____
Total No. Individuals 100 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDB occurrence? ☐ yes ☒ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Vince Scheidt
Address: 3158 Occidental Street
San Diego, CA 92122
Email Address: Vince@san.rr.com
Phone: (858) 457-3873

Plant Information

Phenology: _____
% vegetative _____ % flowering _____ % fruiting _____

Animal Information

Age Structure: 100
adults _____ # juveniles _____ # unknown _____
☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location (please also attach or draw map on back)

(map over)

County: San Diego Landowner / Mgr.: Private
Quad Name: Pauma Valley, California Elevation: _____
T _____ R _____ 1/4 of _____ 1/4 of Section _____ T _____ R _____ 1/4 of _____ 1/4 of Section _____
UTM: Zone: _____ (10, 11) Datum: _____ (NAD83, NAD27, WG584, other)
Source: _____ (GPS, map & type, etc.) Point Accuracy: _____ Meters
UTM Coordinates _____

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope)

San Luis Rey River floodplain; Southern Willow Scrub/ Mule Fat, low willows, herbaceous riparian

River scoured due to sand mining upstream and facilitate flow from channelization immediately upstream in the Pauma Valley Country Club

Other rare species? Scaphiopus hammondi

Site Information Overall site quality: ☐ Excellent ☐ Good ☒ Fair ☐ Poor

Current / surrounding land use: Portion of site used for seasonal agriculture

Visible disturbances / possible threats: Property to be developed, but lower areas adjacent to the floodplain will be restored through cessation of agriculture and the restoration of floodplain fringe vegetation.

Comments: Only juveniles and tadpoles observed. Habitat may not be currently suitable for adult reproduction due to scouring.

Determination: (check one or more, and fill in blanks)

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more)

	Slide	Print
Plant / animal	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Habitat	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? ☒ yes ☐ no

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California Department of Fish and Game
1807 13th Street, Suite 202
Sacramento, CA 95814

For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work: 5 - 23 - 2005
month (mm) date (dd) year (yyyy)

Scientific Name: Scaphiopus hamondii

Common Name: Western Spadefoot

Species Found? ☒ yes ☐ no If not, why? _____
Total No. Individuals 300 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDB occurrence? ☐ yes ☒ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Vince Scheidt
Address: 3158 Occidental Street
San Diego, CA 92122
Email Address: Vince@san.rr.com
Phone: (858) 457-3873

Plant Information

Phenology: _____
% vegetative _____ % flowering _____ % fruiting _____

Animal Information

Age Structure: 1 300
adults # juveniles # unknown
☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location (please also attach or draw map on back)

(map over)

County: San Diego Landowner / Mgr.: Private
Quad Name: Pauma Valley, California Elevation: _____
T _____ R _____ 1/4 of _____ 1/4 of Section _____ T _____ R _____ 1/4 of _____ 1/4 of Section _____
UTM: Zone: _____ (10, 11) Datum: _____ (NAD83, NAD27, WG584, other)
Source: _____ (GPS, map & type, etc.) Point Accuracy: _____ Meters
UTM Coordinates _____

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope)

San Luis Rey River floodplain; Southern Willow Scrub/ Mule Fat, low willows, herbaceous riparian

River scoured due to sand mining upstream and facilitate flow from channelization immediately upstream in the Pauma Valley Country Club

Other rare species? Bufo microscaphus

Site Information Overall site quality: ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Current / surrounding land use: Portion of site used for seasonal agriculture

Visible disturbances / possible threats: Property to be developed, but lower areas adjacent to the floodplain will be restored through cessation of agriculture and the restoration of floodplain fringe vegetation.

Comments: Mostly juveniles and tadpoles observed. Single adult observed.

Determination: (check one or more, and fill in blanks)

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more)

	Slide	Print
Plant / animal	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Habitat	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? ☒ yes ☐ no

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For Office Use Only

Source Code _____ Quad Code _____
Elm Code _____ Occ. No. _____
EO Index No. _____ Map Index No. _____

Date of Field Work: 5 - 25 - 2005
month (mm) date (dd) year (yyyy)

Scientific Name: Plegadis chihi

Common Name: White-faced Ibis

Species Found? ☒ yes ☐ no If not, why? _____
Total No. Individuals 1 Subsequent Visit? ☐ yes ☒ no
Is this an existing NDDB occurrence? ☐ yes ☒ no ☐ unk.
Yes, Occ. # _____
Collection? If yes: _____
Number _____ Museum / Herbarium _____

Reporter: Vince Scheidt
Address: 3158 Occidental Street
San Diego, CA 92122
Email Address: Vince@san.rr.com
Phone: (858) 457-3873

Plant Information

Phenology: _____
% vegetative _____ % flowering _____ % fruiting _____

Animal Information

Age Structure: 1
adults _____ # juveniles _____ # unknown _____
☐ breeding ☐ wintering ☐ burrow site ☐ rookery ☐ nesting ☐ other

Location (please also attach or draw map on back)

(map over)

County: San Diego Landowner / Mgr.: Private
Quad Name: Pauma Valley, California Elevation: _____
T _____ R _____ 1/4 of _____ 1/4 of Section _____ T _____ R _____ 1/4 of _____ 1/4 of Section _____
UTM: Zone: _____ (10, 11) Datum: _____ (NAD83, NAD27, WG584, other)
Source: _____ (GPS, map & type, etc.) Point Accuracy: _____ Meters
UTM Coordinates _____

Habitat Description (plant communities, dominants, associates, substrates/soils, aspects/slope)

San Luis Rey River floodplain; Southern Willow Scrub/ Mule Fat, low willows, herbaceous riparian

River scoured due to sand mining upstream and facilitate flow from channelization immediately upstream in the Pauma Valley Country Club

Other rare species? Bufo microscaphus, Scaphiopus hamondii

Site Information Overall site quality: ☐ Excellent ☒ Good ☐ Fair ☐ Poor

Current / surrounding land use: Portion of site used for seasonal agriculture

Visible disturbances / possible threats: Property to be developed, but lower areas adjacent to the floodplain will be restored through cessation of agriculture and the restoration of floodplain fringe vegetation.

Comments:

Determination: (check one or more, and fill in blanks)

- ☐ Keyed (cite reference): _____
☐ Compared with specimen housed at: _____
☐ Compared with photo / drawing in: _____
☐ By another person (name): _____
☐ Other: _____

Photographs: (check one or more)

	Slide	Print
Plant / animal	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Habitat	<input type="checkbox"/>	<input type="checkbox"/>
Diagnostic feature	<input type="checkbox"/>	<input type="checkbox"/>

May we obtain duplicates at our expense? ☒ yes ☐ no